

# SEQUENCE LISTING

<110> ADViSYS, Inc.

<120> Insulin-Like Growth Factor ("IGF-I") Plasmid Mediated  
Supplementation for Therapeutic Applications

<130> 108328.00172 - AVSI-0034

<160> 9

<170> PatentIn version 3.1

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<211> 5423

<212> DNA

<213> artificial sequence

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<223> Nucleic acid sequence for the pAV2001 plasmid.

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<220>  
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| aaaataactc ccgggagtta ttttttagagc ggaggaatgg tggacacca aatatggcga  | 180 |
| cggttcctca cccgtcgcca tatttgggtg tccgccctcg gccggggccg cattcctggg  | 240 |
| ggccggggcg tgctcccgcc cgcctcgata aaaggctccg gggccggcg cggccacga    | 300 |
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Phe Tyr Leu Ala Leu Cys Leu Leu Thr Phe Thr Ser Ser Ala Thr Ala  
 35 40 45

Gly Pro Glu Thr Leu Cys Gly Ala Glu Leu Val Asp Ala Leu Gln Phe  
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Val Cys Gly Asp Arg Gly Phe Tyr Phe Asn Lys Pro Thr Gly Tyr Gly  
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Ser Ser Ser Arg Arg Ala Pro Gln Thr Gly Ile Val Asp Glu Cys Cys  
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Phe Arg Ser Cys Asp Leu Arg Arg Leu Glu Met Tyr Cys Ala Pro Leu  
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Lys Pro Ala Lys Ser Ala Arg Ser Val Arg Ala Gln Arg His Thr Asp  
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Ser Ala Gly Asn Lys Asn Tyr Arg Met  
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|  |      |
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| taaaaccaat gccctgtgga aggaacata aaacttcaag aagcattaaa tcatcagtca   | 300  |
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| caggaagccc attggtgcag agagcagcct gggatgccca tgacacgggc acccactgca  | 540  |
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| gggacagcac tgctggaaga aaagatgatt ttcaactgaa cttactatcc aggcaggtta  | 1080 |
| ttgctttatt gtgatggtgc taagagtgcg ttctttctca ctgtaatgat tttgccctca  | 1140 |
| tgtgtgaata cactttccaa taacagcaca gcctccaaag ggaatttctg caggaagaga  | 1200 |
| cagtacctgg tgtgggaagt ccctgtgcag ccctatgtgc ttcaagctga atggctggga  | 1260 |
| ctggctggga gagcaggatc acatcctttc ttaaaaagac aaacagaagg tagtgtgtga  | 1320 |
| ccttgctgta ttactattt acgcgttggt gttcagtggc acatacctca acggggatat   | 1380 |
| ggagagctat ttccccaacc ctgctgctg gacctgatc tggggttttc ctgtagctta    | 1440 |
| agcggtgcca actgcttaag tgattgtaga atcagtaagg ctggaaaaga ccacagatca  | 1500 |
| ttaagtccaa ctgtcagccc catccccacc gcgcccactg tcaactcagt ccacatccac  | 1560 |
| gcattttctg aacatctcca gggacagtga ctccaccctg caccagctgt gcttcagagc  | 1620 |
| aggcagggtg acagtctcag tgccagttgc atcctgctga agagcttaac agtgcagttt  | 1680 |
| aacaacggac tgatttggtg atgtggttgc tgaatcagta cgttgagatg tactaaact   | 1740 |
| ttttggagat taatttcagg atggaacaca ttcttaacct tgaaaccagc ctttgatttg  | 1800 |
| ggcttggcat ttgcagaatt tgcaggaaaa gattgtttgg gaacagatga atggaatttc  | 1860 |
| caccaaacag aaaattaaca cttacaccag tttgagtctg gtcttcgttc gatatttctt  | 1920 |



aagaatctca tcacctccc tgctcttga ccagtgtgc tgacaggagg tggaggatca 1980  
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<220>  
<223> Nucleic acid sequence of a human growth hormone 3' UTR.

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acctgtaggg 190

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<212> PRT  
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<220>  
<223> Protein sequence of vascular endothelial growth factor

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Tyr Leu His His Ala Lys Trp Ser Gln Ala Ala Pro Met Ala Glu Gly  
20 25 30  
Gly Gly Gln Asn His His Glu Val Val Lys Phe Met Asp Val Tyr Gln  
35 40 45  
Arg Ser Tyr Cys His Pro Ile Glu Thr Leu Val Asp Ile Phe Gln Glu  
50 55 60  
Tyr Pro Asp Glu Ile Glu Tyr Ile Phe Lys Pro Ser Cys Val Pro Leu  
65 70 75 80

Met Arg Cys Gly Gly Cys Cys Asn Asp Glu Gly Leu Glu Cys Val Pro  
85 90 95

Thr Glu Glu Ser Asn Ile Thr Met Gln Ile Met Arg Ile Lys Pro His  
100 105 110

Gln Gly Gln His Ile Gly Glu Met Ser Phe Leu Gln His Asn Lys Cys  
115 120 125

Glu Cys Arg Pro Lys Lys Asp Arg Ala Arg Gln Glu Lys Lys Ser Val  
130 135 140

Arg Gly Lys Gly Lys Gly Gln Lys Arg Lys Arg Lys Lys Ser Arg Tyr  
145 150 155 160

Lys Ser Trp Ser Val Pro Cys Gly Pro Cys Ser Glu Arg Arg Lys His  
165 170 175

Leu Phe Val Gln Asp Pro Gln Thr Cys Lys Cys Ser Cys Lys Asn Thr  
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Asp Ser Arg Cys Lys Ala Arg Gln Leu Glu Leu Asn Glu Arg Thr Cys  
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Arg Cys Asp Lys Pro Arg Arg  
210 215

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<220>  
<223> Nucleic acid sequence of a plasmid pUC-18 origin of replicaiton

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aacatgtgag caaaaggcca gcaaaaggcc aggaaccgta aaaaggccgc gttgctggcg 180  
tttttccata ggctccgccc ccctgacgag catcacaaaa atcgacgctc aagtcagagg 240  
tggcgaaacc cgacaggact ataaagatac caggcgtttc ccctggaag ctccctcgctg 300  
cgctctcctg ttccgaccct gccgcttacc ggatacctgt ccgcctttct cccttcggga 360  
agcgtggcgc tttctcatag ctcacgctgt aggtatctca gttcgggtgta ggtcggtcgc 420  
tccaagctgg gctgtgtgca cgaacccccg gttcagcccc accgctgcgc cttatccggt 480

aactatcgtc ttgagtcctaa cccggtaaga cacgacttat cgccactggc agcagccact 540  
ggtaacagga ttagcagagc gaggtatgta ggcggtgcta cagagttctt gaagtgggtgg 600  
cctaactacg gctacactag aaggacagta tttggtatct gcgctctgct gaagccagtt 660  
accttcggaa aaagagttgg tagctcttga tccggcaaac aaaccaccgc tggtagcggt 720  
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tt 782

<210> 9  
<211> 5  
<212> DNA  
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<220>  
<223> This is a NEO ribosomal binding site

<400> 9  
tcctc

5